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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,459	03/26/2001	Fritz Schwertfeger	HOE96/F319CON	1602
7590 Martha Ann Finnegan Chief Intellectual Property Counsel, Cabot Corp. Billerica Technology Center 157 Concord Avenue Billerica, MA 01821-7001			EXAMINER METZMAIER, DANIEL S	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 04/17/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/817,459

Applicant(s)

SCHWERTFEGER ET AL.

Examiner

Daniel S. Metzmaier

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6, 7, 56-59, 62, 63, 67, 68, 71, 76, 77, 79-115, 117 and 119 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) 2-4, 6, 7, 62, 63, 67, 68, 71, 76, 77, 79-103 and 107-115 is/are allowed.
6) ☒ Claim(s) 56-59, 104-106, 117 and 119 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Final Drawing (PTO-846)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Claims 2-4, 6-7, 56-59, 62-63, 67-69, 71, 76-77, 79-115, 117 and 119 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 56-59, 104-106, 117 and 119 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McDaniel et al, US 4,316,807. McDaniel et al (column 2, lines 65 et seq; more particularly column 8, lines 21 et seq; examples and claims) discloses the formation of aqueous solution, suspension, or dispersions of silane-treated hydrous inorganic materials selected from the group consisting of silicon oxide, aluminum oxide and mixtures thereof.

McDaniel et al (examples) discloses adding acid including HCl to sodium silicate (i.e. waterglass) and/or sodium aluminate to form a hydrogel at a pH of about 7 to 11 (column 4, line 56). Said gel is subsequently followed by the addition of an alkoxysilane to form the silane treated hydrous inorganic materials.

McDaniel et al (abstract) discloses the compositions have use as viscosity modifying compositions that impart pseudoplastic properties to aqueous systems. McDaniel et al (column 7, lines 46) further discloses the additives such as water loss inhibitors as well as further conventional additives employed in the drilling fluid composition art. Fibers are well known in the art as fluid loss additives in the drilling fluid art.

See column 11, lines 8 et seq, regarding the addition of salt or electrolyte, common to drilling fluids.

Some of the claims set forth in the preamble that the process is directed to a process for preparing an organically modified aerogel but fails to provide a clear and positive statement/step in the body of the claim requiring that an aerogel is formed. These claims have been included herein as they do not distinguish since the process

claimed employing the process steps as claimed may be employed in making materials other than aerogels.

The terms hydrogel and lyogel are deemed to overlap and do not distinguish the claimed subject matter over the reference.

Furthermore, applicants have not shown the separation of said steps to be critical to the invention. the resulting materials would have the hydrophobic groups on the surface in processes where the silane is added during and after hydrogel formation based on the partition of the hydrophilic and hydrophobic materials.

Furthermore, see MPEP 2144.04(IV)(C).

Allowable Subject Matter

5. Claims 2-4, 6-7, 62-63, 67-68, 71, 76-77, 79-103 and 107-115 allowed.

Response to Arguments

6. Applicant's arguments filed 11 January 2008 have been fully considered but they are not persuasive.
7. Applicants (pages 13 and 14) assert the McDaniel reference does not disclose separate steps for forming the hydrogel and treatment with the silane. This has not deemed persuasive since the addition of the silane is after the initiation of gellation and the claimed methods do not define the degree or completion of the gellation.

Furthermore, applicants have not shown the separation of said steps to be critical to the invention. the resulting materials would have the hydrophobic groups on the surface in processes where the silane is added during and after hydrogel formation based on the partition of the hydrophilic and hydrophobic materials.

Furthermore, see MPEP 2144.04(IV)(C).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Daniel S. Metzmaier/
Primary Examiner, Art Unit 1796**

DSM